



**Shifting cultivation in transition - variable impacts on people's livelihoods -two African cases (Zambia and Tanzania)**

**"Social-ecological outcomes of shifting cultivation in transition" - Open Science Meeting of the Global Land Programme Bern 24-26th 2019**

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## Shifting cultivation in transition - variable impacts on people's livelihoods – two African cases (Zambia and Tanzania)

By Torben Birch-Thomsen

“Social-ecological outcomes of shifting cultivation in transition”





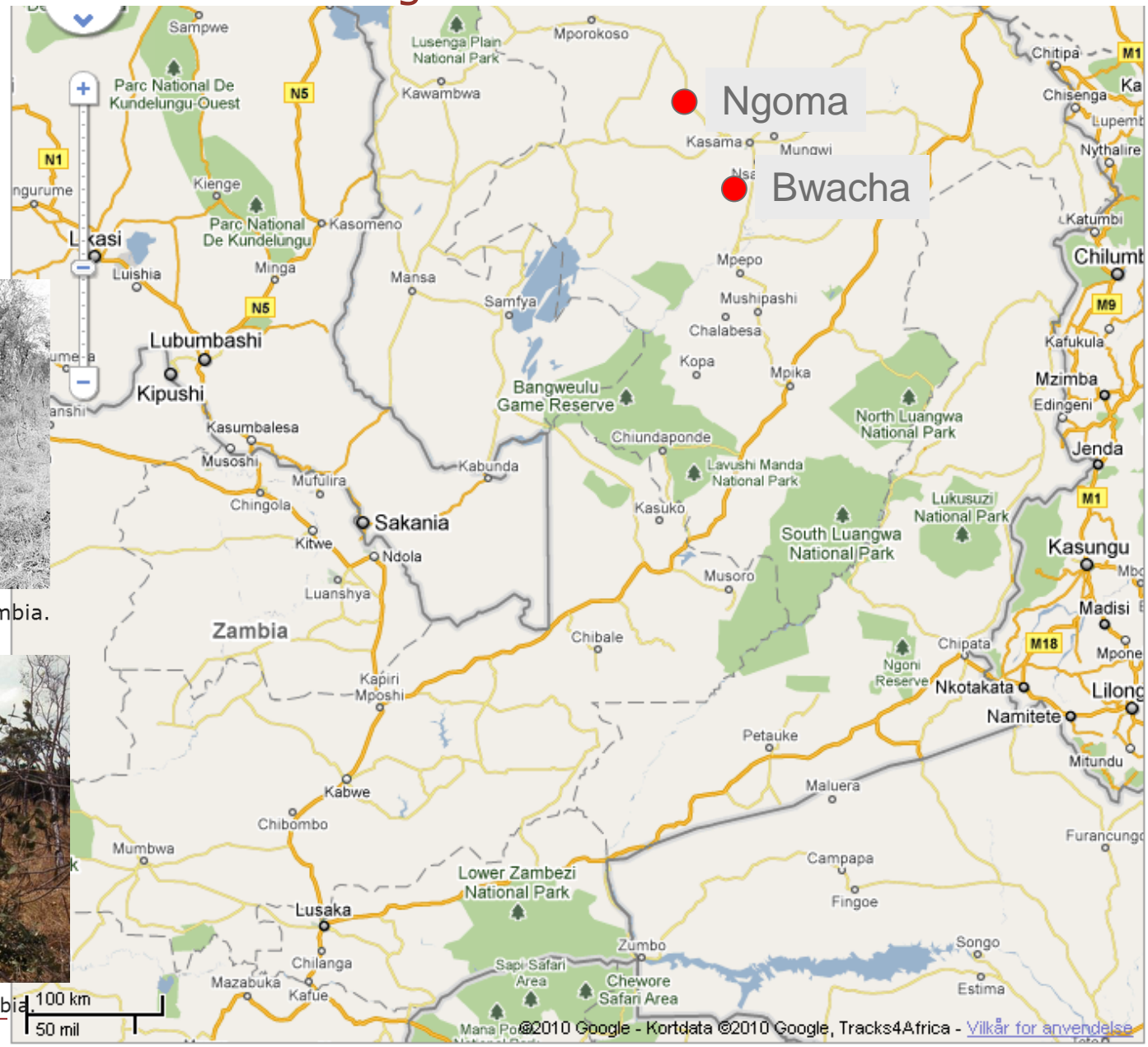
# Chitemene shifting cultivation – Northern Zambia



Preparing for burning, Bwacha, NP, Zambia.  
1980 (Photo by Peter Strømgaard)



Preparing for burning, Bwacha, NP, Zambia.  
1990 (Photo by T. Birch-Thomsen)





1990



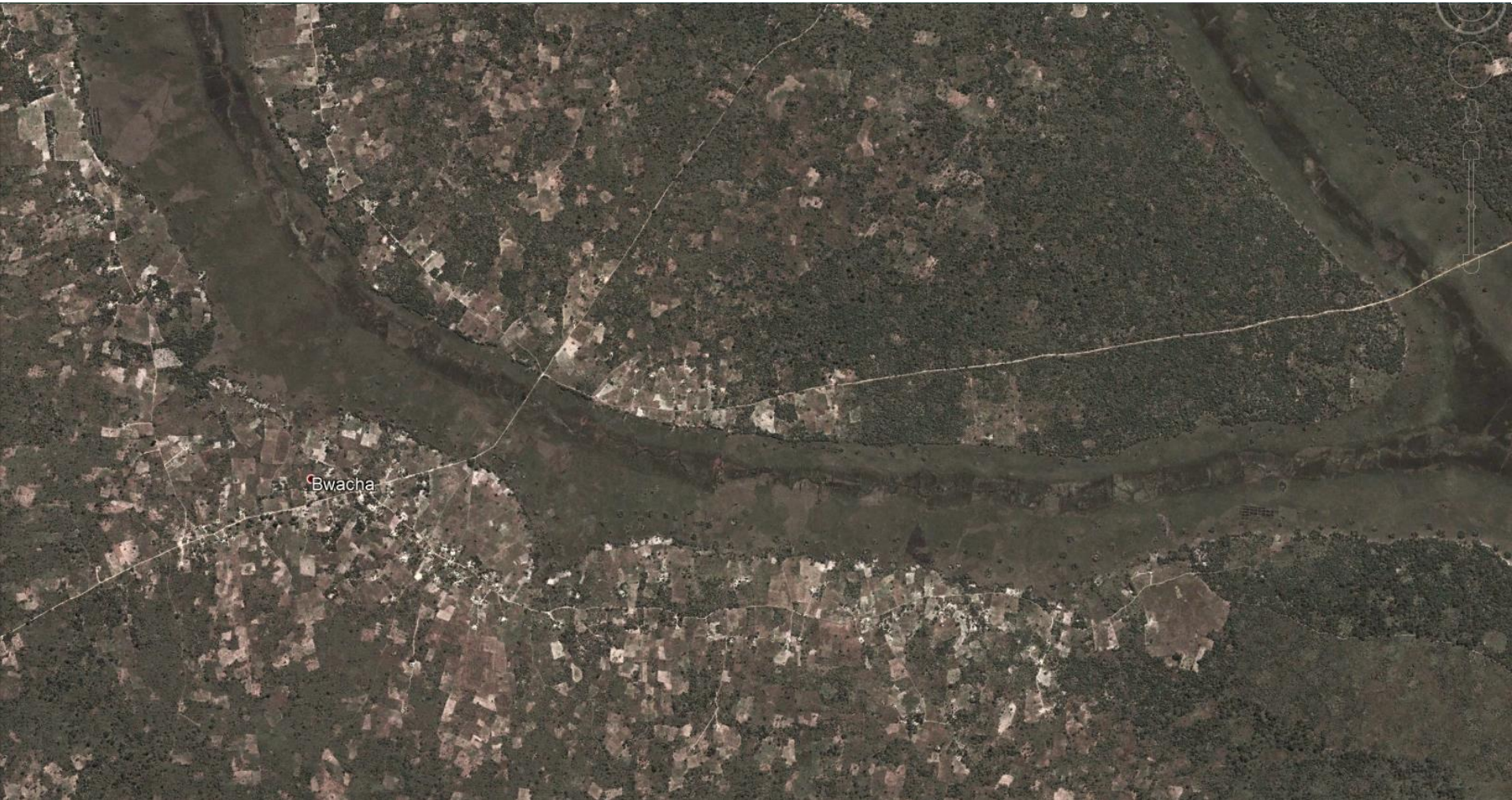
2010



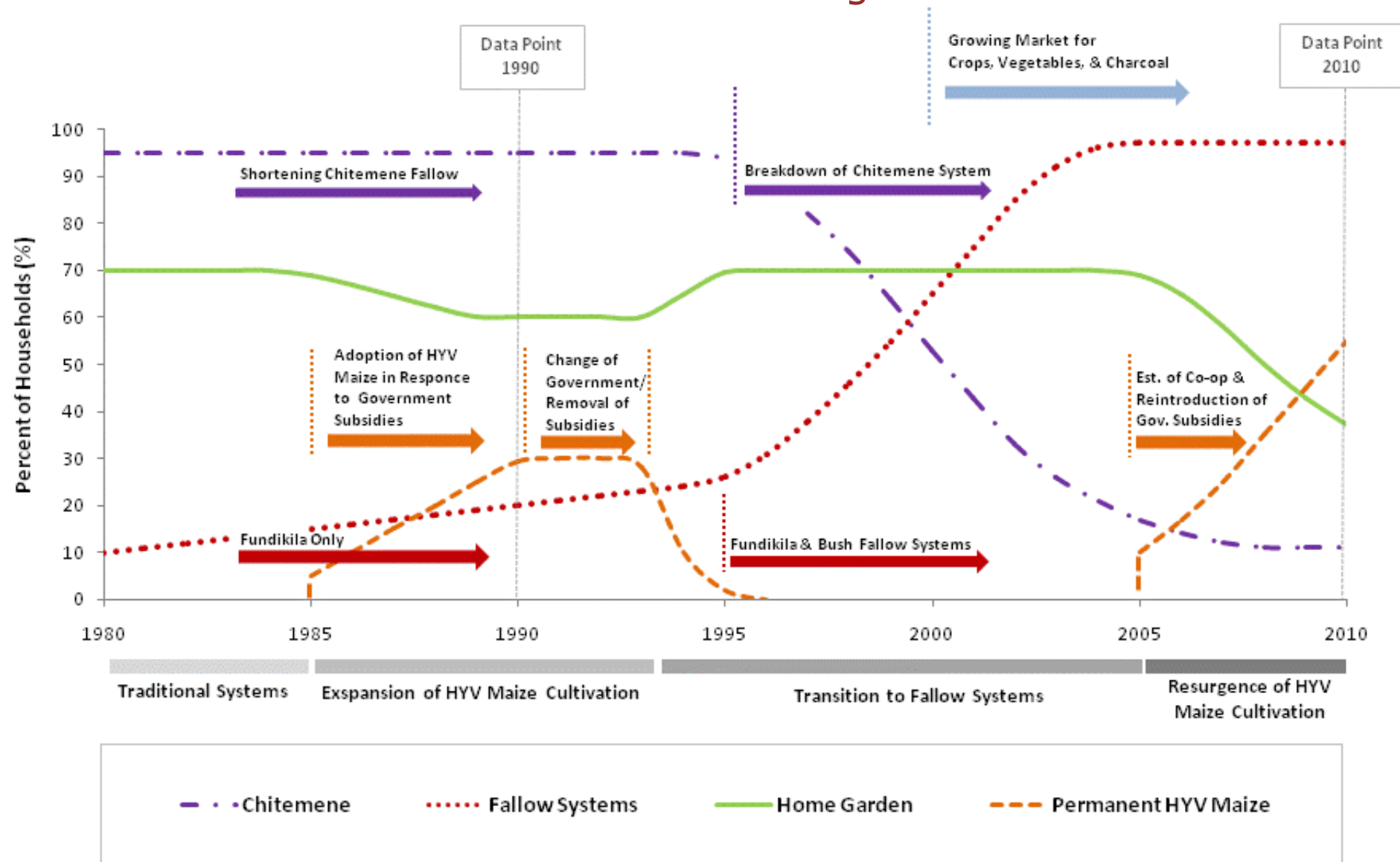


## Land cover – land use change

Bwacha - Google Earth 2003 - 2013



# Main drivers of change



Source: Grogan (2011)

## Conclusions

**Table 3** Change in living standards (only households that have been established for over 10 years have been included). Source: Household questionnaire (present study)

Village	Ngoma (n=19)		Bwacha (n=22)	
Year	2000	2010	2000	2010
Consumer goods (%)				
Bicycle	47	79	50	82
Television	0	11	5	18
Mobile phone	5	37	5	32
Radio	47	63	50	91
Ox-plough	—	—	—	—
Other	0	5	0	14
Housing conditions (%)				
Tin roof	0	0	0	9
Brick/Cement walls	68	84	73	91

- Welfare has generally improved over the past 10 years - attributed to agricultural expansion and intensification (incl. government input subsidies), coupled with the growth of various crop markets – increased rural-urban connections (livelihood diversification).
- More money available, which has led to improved food security and living standards. People can generally afford better clothing, household commodities, and education for their children.
- However, it was noted by the villagers that there is now a larger disparity in wealth within the community.





## Brief summary from the Tanzanian case: Kilosa District

Focus on drivers of shifting cultivation transformation and its impacts on livelihoods between 1995 and 2014 in two villages located in Eastern Central Tanzania by combining analysis of socio-economic and remote sensing data.

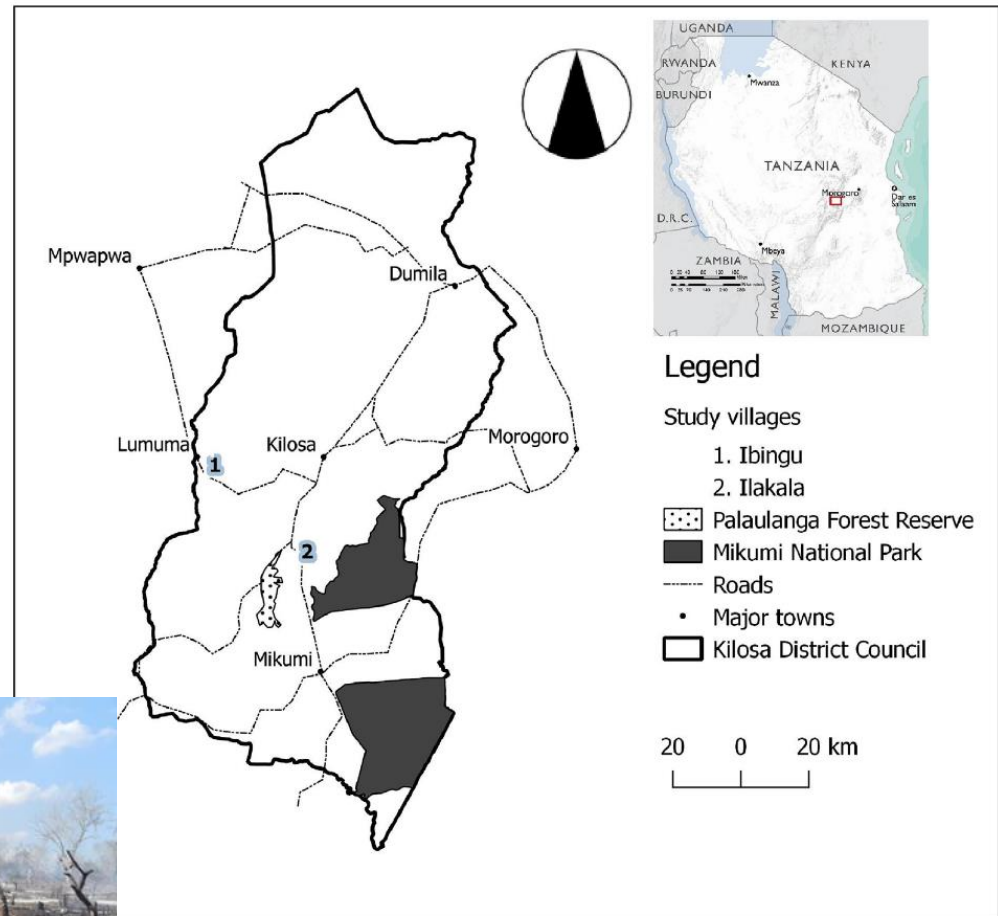


Figure 1. Map of study area to showing the location of Ibingu and Ilakala Villages.



## Brief summary from the Tanzanian case: Kilosa District

- Results revealed that in an upland village, the number of shifting cultivators declined from 34% to 16% and the area changed from 19% to 17%
- In a plateau village, the number of shifting cultivators declined from 24% to 18% and the area substantially declined from 23% to 14%.

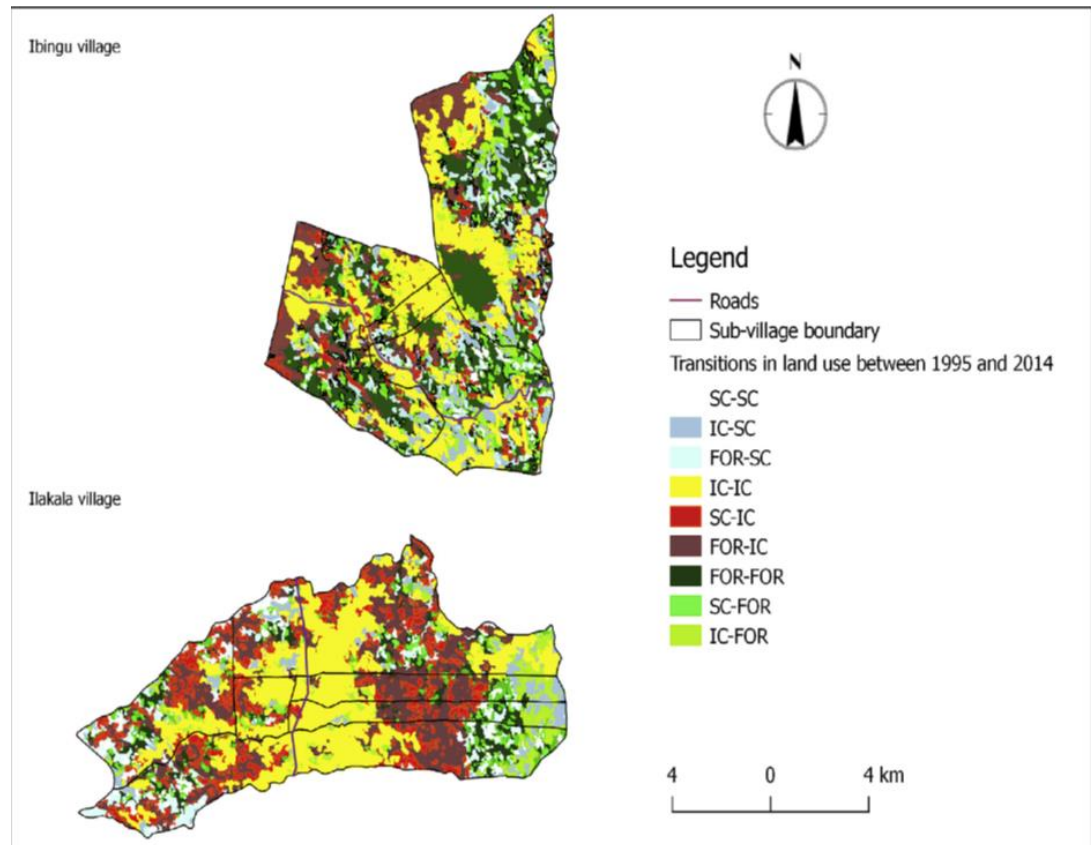


Figure 3. Change map showing transitions in shifting cultivation between 1995 and 2014. SC=Shifting cultivation and IC=Intensive cultivation.

In both villages, shifting cultivators adopted intensive land preparation methods that involved deep tillage and burying of vegetation.

## Brief summary from the Tanzanian case: Kilosa District

### Key drivers

The upland village:

- Adoption and enforcement of land tenure policies that restrict shifting cultivation.
  - International policies on climate change - REDD+



The plateau village:

- Population pressure causing competition for land between shifting cultivators and pastoralists.
  - National land tenure and resource use policies



### The outcome

In both villages the transformation of shifting cultivation negatively affected household income and increased periods of food insecurity.





## References

### Zambia case:

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